Location
Upper Mississippi River

State(s)
IA,IL,MN,MO,WI

Congressional District(s)
IA-2, IL-13, IL-17, IL-18, MO-6, WI-3

Status
The Corps of Engineers is actively working with partners to address the flood risk management issues on the Upper Mississippi River in order to reduce the risks and consequences of flood related damages and to improve system resilience. The first phase in developing a Upper Mississippi River (UMR) hydraulic model started in FY16 with a $500,000 reprogramming, which will allow the development of a hydraulic model for a 320 miles segment stretching from Keokuk, IA (River Mile 364) to Thebes, IL (River Mile 44). Work initiated in August 2016 and expected to be complete by September 2017.

Description
In recent years, the Upper Mississippi River watershed has experienced more frequent flooding with higher stages, particularly in the last ten years with major floods occurring in 2008, 2010, 2011, 2013 and 2014. In Quincy, Illinois, alone, four of the top five record crests have happened in the last twenty years. In addition to the challenges of increased flooding, the Upper Mississippi River watershed also lacks a regional flood risk management strategy comparable to the Mississippi River and Tributaries project on the Lower Mississippi River. The U.S. Army Corps of Engineers, St. Paul, Rock Island, and St. Louis Districts, are working collaboratively with the states and local communities to develop a systemic and sustainable flood risk management strategy that would reduce the risks and consequences of flooding.

The Upper Mississippi River watershed is defined as the drainage area above Cairo, Illinois, at the confluence of the Mississippi and Ohio rivers exclusive of the Missouri River Basin, and encompasses approximately 185,000 square miles. It includes the states of Minnesota, Wisconsin, Iowa, Illinois and Missouri and covers approximately 1,200 miles of navigable river on the Upper Mississippi and Illinois rivers. The UMR watershed and associated environments have a rich record of human history spanning more than 12,000 years and is one of the most archeologically and historically significant regions in the country. In modern times, the UMR has assumed a significant role in the development and prosperity of the Midwestern economy and way of life. The river is both a source of prosperity and challenges. The waters of the UMR create a nationally significant ecosystem and a nationally significant transportation system but also bring flooding. When the levees and reservoirs of the UMR were built, by both federal and non-federal resources, they were not constructed in accordance with any overall systemic strategy or a consistent design basis. These facilities have a wide variety of structural integrity, and provide varying levels of flood risk reduction for

U.S. ARMY CORPS OF ENGINEERS - ROCK ISLAND DISTRICT
CLOCK TOWER BLDG. - P.O. BOX 2004 - ROCK ISLAND, IL 61204-2004
www.mvr.usace.army.mil

similar land uses. The majority of the structures were federally constructed or improved. Most were planned, designed and built incrementally rather than systemically, under various authorities resulting in differing levels of risk reduction. Additionally, in accordance with the project authorizations, these structures are operated and maintained by the local sponsor. The average age of the agriculture systems on the Upper Mississippi and Illinois rivers is on average 75 years old.

The risks, due to a lack of regional flood risk management strategy, remain high and the Flood of 1993 provided a vivid demonstration of the vulnerabilities from a lack of regional strategy. Forty-seven deaths were attributed to the Flood of 1993 as well as nearly $15 billion of damage. The social disruption was beyond measure, with more than 70,000 homes damaged or destroyed and approximately 74,000 people evacuated. The Corps is seeking to collaboratively work with other Federal agencies, state agencies, local communities, and stakeholders to develop a Regional Flood Risk Management (RFRM) strategy. A collaborative, integrated, holistic and sustainable flood risk management strategy is needed to protect the public and reduce the flood damages to the Nation. A resilient Upper Mississippi River (UMR)FRM system will protect lives and property, secure our Nation by reducing risk from disaster, and reduce the potential of future Federal, State, and local expenditures.

The first step in developing a regional flood risk management strategy for the UMR is to develop a hydraulic model in order to understand and evaluate the impacts of levee and floodplain alterations. The hydraulic model is a key "tool" and would be a shared model used by Federal and states agencies to replace multiple existing models currently is use to more effectively and consistently manage the floodplains. The first phase started in FY16 with a $500,000 reprogramming, which will allow the development of a hydraulic model for a 320 miles segment stretching from Keokuk, IA (River Mile 364) to Thebes, IL (River Mile 44). Work initiated in August 2016 and expected to be complete by September 2017. Additional phases of work are planned which will model the UMR and Illinois River and will require additional funding.

RFRM is a joint effort of the Rock Island, St. Louis, and St. Paul Districts in collaboration with federal, state and local agencies and stakeholders. It works with available information and integrating with work by others and other programs to the extent possible.

Point of Contact: Program Manager
Phone: 309-794-5386
Email: cemvr-pm-web@usace.army.mil